EDITORS' TABLE.

EDITORS: A. S. PACKARD, JR., AND E. D. COPE.

—— With 1883 the AMERICAN NATURALIST commences the seventeenth year of its existence. It enters this period with a larger constituency of readers and contributors than it has had at any time in the past. It is, however, not only on the numbers but on the quality of its patrons that the management feels disposed to congratulate itself. It appears to be the most favored medium of publication of the naturalists and biologists of the United States, when they wish to bring the results of their investigations before the general public in a more or less popular form. We hope to continue to deserve the favors of our friends, and present them this month with solid evidence of our intentions in this respect.

The present number contains thirty pages more than the standard number heretofore published, and it is intended that this increased amount shall be permanent. We add two new departments, those of physiology and psychology, which supply a need we have long felt. These give us a total of ten departments, the greater number of which are separately sub-edited by able scientific men. It is especially our aim to preserve the well-known national character of the NATURALIST. Our editors represent different regions; one resides in Boston, one in Providence, three in Philadelphia, two in Washington, one in Ann Arbor, Michigan, and one in Iowa. For our new departments we hope to secure the services of representative men in other sections.

An especial feature of the NATURALIST is the preference which it gives to American work and workers. *It is the only magazine in the world to-day which keeps its readers en rapport with the work of Americans in the field of the natural sciences.* To do this more perfectly in the future will be the object of its managers and editors.

—— The zoölogy of the future is to be more and more the study of living beings, rather than of museum-preserved skin and bones. The best schools in Europe for the zoölogist are the sea-side laboratories at Naples, at Roscoff and Banyul-sur-le-mer. In England and this country museum-trained men have obtained the best results and have most advanced biology by deep-sea dredging and marine exploration, for the sea has been the source of all life. It is refreshing to read of Haeckel's journey to Ceylon. Like an old-

time naturalist he goes into raptures over the beauties and wonders of tropical scenery, the luxuriant equatorial vegetation, the interesting human races of Ceylon—all this, while pursuing his special researches. It is a refreshing sign of the times that as histologists, embryologists and anatomists, we can do without museums, elaborate and costly piles of brick and mortar, but can by the ever resounding sea, the flowing river, the quiet lake, commune with living nature. The palæontologist even, leaving his boxes of bones, his drawers of disjointed skeletons and fossil shells, while digging in the cemeteries of departed life forms, gets his meed of inspiration, as ennobling in its way as Gray's "Elegy written in a Country Churchyard."

There is little doubt but that the zoölogical student, after a year or more spent in Germany, returns with new ideas, new fields of research and new methods. Incomparably the best school, however, for the advanced American student, would be a year or more spent at the Zoölogical Laboratory at Naples. It is hoped that the means may be found in the United States to engage a table and send a promising working naturalist to Naples.

In this connection the proposed permanent zoölogical laboratory in connection with the work of the U. S. Fish Commission, at Wood's Holl, is of interest. It is designed to erect a permanent building, with work-rooms, large tanks and all the apparatus for studying the habits and development of marine animals, from sharks and the food-fishes down to the minutest forms of life. A steamer of 1000 tons is now building especially designed for deep-sea dredging in the Atlantic ocean. She is to be fitted with electric lights which can be lowered 500 fathoms, so as to light up the sea-bottom. With these appliances and means for investigation, it only remains to furnish the men who can make the best use of such grand facilities, and produce work like that which has emanated from Naples and Roscoff.

—— The National Academy of Sciences has, at present, ninety-six members and four honorary members. The possible number of members is one hundred. There are nine foreign associates. The principal localities which furnish the members and honorary members are as follows: Washington, 15; Philadelphia, 13; Boston and neighborhood, 13; New York and neighborhood, 12; New Haven, 12; San Francisco and neighborhood, 4; Princeton, 3; Baltimore and St. Louis each 2. The condition of election to the National Academy is original work done, as in the academies of sciences of Europe. A much more rigid scrutiny is now given to the claims of candidates than was the case at the time of the organization of the Academy. No person can now be elected to membership who cannot show a record of original work of a high standard. A few of our ablest scientists are, however, not yet members, but their election is only a question of time. By the

death of Professor W. B. Rogers the office of president is now vacant. The candidates for the position most spoken of, are Professor J. D. Dana, Professor F. A. P. Barnard and Professor James Hall.

—— The numbers of the AMERICAN NATURALIST for 1882 were issued on the following dates: January, Dec. 30, 1881; February, January 25, 1882; March, Feb. 24, 1882; April, March, 22, 1882; May, April 24, 1882; June, May 20, 1882; July, June 22, 1882; August, July 28, 1882; September, Aug. 24, 1882; October, Sept. 28, 1882; November, Oct. 28, 1882; December, Dec. 2, 1882.

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RECENT LITERATURE.

A NEW EDITION OF SACHS' BOTANY.[1] It is now more than seven years since the English-speaking and reading botanists were laid under great obligations to Macmillan & Co., for bringing out the translation of the third edition of Sachs' Lehrbuch, made by Bennett and Dyer. During this period it is safe to say that no single book on morphological and physiological botany has been more studied and consulted by advanced students, and it is not too much to affirm that few books have ever exerted a more beneficial effect upon a science, than it has in England and America. We have now a new English edition of this important work, based upon the fourth German edition of the Lehrbuch, but with many additions, corrections and modifications by Dr. Vines, who, for some years has been well known as a careful student and investigator.

It would be impossible within the limits of an ordinary review to notice the peculiarities of the new edition, containing as it does over one hundred pages more matter than the old one. New paragraphs and sections are common throughout the volume, those by Dr. Vines being generally distinguished by being enclosed in brackets. The chapter on Thallophytes, although no longer novel, will still be of interest on account of the new notes which occur here and there in the body of the book, and especially in the appendix. We note with pleasure the remark [Appendix, p. 955], that as the nuclei of the coalescing myxoamœbæ remain distinct, "the plasmodium can no longer be regarded as the equivalent of a zygospore, and the position of the Myxomycetes among the Zygomycetes is untenable." This relegates the Myxomycetes to the Protophytes, where they were first placed by Fischer, and subsequently by us in our "Botany."[2]

[1] *Text-Book of Botany, Morphological and Physiological.* By JULIUS SACHS, Professor of Botany in the University of Wurzburg. Edited, with an Appendix, by SIDNEY H. VINES, M. A., D. Sc., F. L. S., Fellow and Lecturer of Christ College, Cambridge. Second Edition. Clarendon Press, Oxford, 1882. New York: Macmillan & Co.

[2] *Botany for High Schools and Colleges*, New York, 1880.